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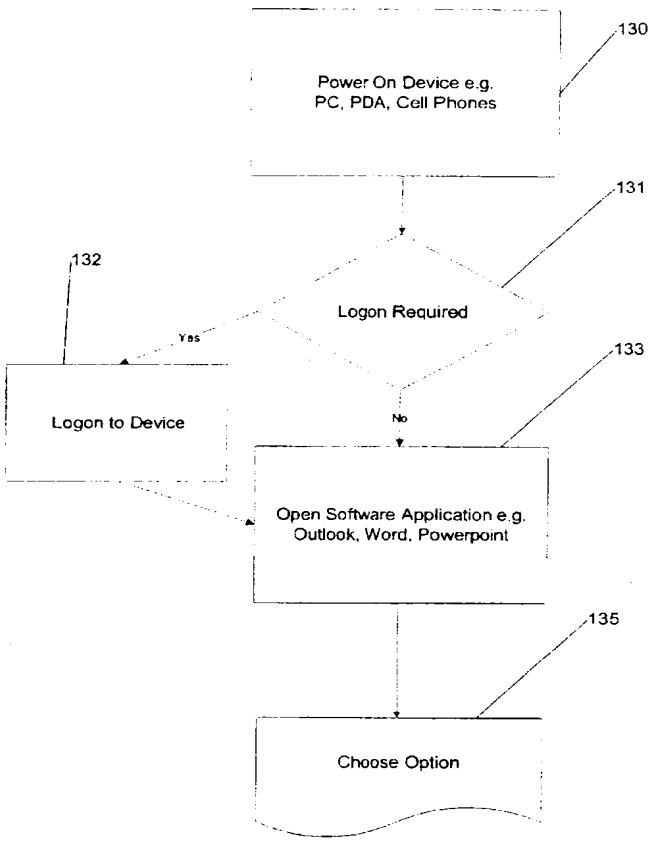
(54) Title: MOOD MESSAGING



(57) Abstract: A method of indicating mood in electronic messages capable of being displayed on a display device is described. Before or after a message originator has prepared an electronic message, the message originator is presented with a number of mood formats to choose from. Each format being a combination of more than one formatting feature comprising text attributes, including colour, text backgrounds, and added sounds and images. Each of the formats is indicative of a mood which the message originator may wish to associate with the message content. When the message originator has selected a mood to apply, the particular text attributes, background, sounds and images determined by the selected format are applied.

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MOOD MESSAGING"

TECHNICAL FIELD

The present invention generally relates to a message processing system having an editing function for messages and the like. More specifically, the present invention is directed to a message format setting method which allows originators to express their mood. More specifically the message format setting method allows originators to restrict to the original recipient viewing of the emotional content of the message

BACKGROUND ART

In a conventional computer based text editor, the ability to add a communicative intent is absent. The originator of a message has the ability to alter the format of the message. US Patent 5302969 (Massayoshi Kuroda et al) describes a method of formatting a document. The format setting operations of a document can be performed by selecting a desirable format from a displayed menu. The ability of originators to convey their mood to the receiver is absent.

A second conventional message formatting method provides standard format templates allowing the originator to select a predetermined message template. For example, editors such as Microsoft Word have the facilities to aid the user in selecting the appropriate template for the particular message the user is intending to send to the receiver, such as business letters. But in these systems the originator does not have the ability to easily alter the contextual subtext of parts of the message.

In the prior art, some formats to convey the communicative intention of the message cannot be set with only one setting operation.

Hotmail provides emoticons that an originator of a message can use to indicate to a receiver the emotion the originator wants to convey but the emoticons do not alter in any way the text message and only add an icon. Yahoo! has Environments but these are backgrounds rather than an aid that allows the originator to better enable the receiver in their understanding of the mood of the originator.

DICLOSURE OF THE INVENTION

An object of the present invention is to provide a message format setting method capable of readily setting a format indicative of the mood of the originator.

Accordingly in one aspect the invention consists in a method of formatting electronic messages capable of being displayed on a display device comprising the steps of:

before or after a message originator has prepared an electronic message, presenting to the message originator a plurality of formats to choose from, each said format being a unique combination of more than one feature selected from the group comprising text attributes, including but not limited to colour, text backgrounds, and added sounds and images, each said format being indicative of and corresponding to a mood which the message originator may wish to associate with the message content; and

in response to the format selection made by the message originator, applying to the message the particular text attributes, background, sounds and images determined by the selected format.

In a second aspect the invention consists in computer software for implementing the above method.

In a third aspect the invention consists in a method of formatting electronic messages capable of being displayed on a display device wherein:

before or after a message originator has prepared an electronic message, presenting to the message originator on a display device a plurality of format determining icons;

each said icon being indicative of and corresponding to a mood which the message originator may wish to associate with the message content;

each said icon on being selected, applying a pre-determined format to the message; and

each format being a unique combination of one or more features selected from the group comprising text attributes, including but not limited to colour, text backgrounds, and added sounds and images.

It is to be understood that "message" is used in the context of information and communication theory and means "an ordered series of characters intended to convey information". Applications for messaging include but are not limited to word processors, such as Microsoft Word, presentation software, such as Power Point, email applications such as Microsoft Outlook and Eudora Mail. Other applications such as editors for PDA's and WAP enabled cellular telephones are included.

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 is a flow chart for the powering on sequence according to a preferred embodiment of the present invention;

Figure 2 is a flow chart for showing the formatting options available in the preferred embodiment of the present invention;

Figure 3 is a flow chart for showing an expanded portion of Figures 2 and 5;

Figure 4 is a flow chart for showing the user logging on in an alternate embodiment of the present invention;

Figure 5 is a flow chart for the showing selection of formatting options in an alternative embodiment of the present invention;

Figure 6 is a flow chart of the message sending and receiving process of an alternative embodiment of the present invention;

Figure 7 shows a cell phone display presenting the main menu of a messaging system according to a further embodiment of the present invention;

Figure 8 shows a cell phone display presenting the message format menu of a messaging system according to a further embodiment of the present invention;

Figure 9 shows a cell phone display presenting the message content screen of a messaging system according to a further embodiment of the present invention;

Figure 10 shows a cell phone display presenting the mood selection screen of a messaging system according to a further embodiment of the present invention;

Figure 11 shows a cell phone display presenting the message context screen of a messaging system according to a further embodiment of the present invention;

Figure 12 shows a cell phone display presenting the message sending screen of a messaging system according to a further embodiment of the present invention;

Figure 13 shows a cell phone display presenting the message received screen of a messaging system according to a further embodiment of the present invention;

Figure 14 shows a cell phone display presenting the message received context screen of a messaging system according to a further embodiment of the present invention;

Figure 15 shows a cell phone display presenting the received message screen with mood formatting of a messaging system according to a further embodiment of the present invention;

Figure 16 shows a cell phone display presenting the a received message screen without mood formatting of a messaging system according to a further embodiment of the present invention;

BEST MODE FOR CARRYING OUT THE INVENTION

Referring now to the drawings, a message formatting system according to a preferred embodiment of the present invention will be described.

The invention will normally be implemented as a software application which is called by conventional software editors.

Mood can be conveyed by changing any one or more of the following message format characteristics. Changing the font type to a type more suited to the selected intention, for example, using a graceful type font for a romantic message or a respectful type font for a message expressing regret. The font size can also be changed, for example, using a large font size to express joy or a small font size for a humble apology. The font colour can also be changed, for example, using red for an angry message or green to express humour. Changing the font density, for example, using bold to express an aggressive statement and italics can be used to emphasise a point.

The background, colours, textures, or images can be changed to convey mood, for example, a red background reinforcing hostility, a floral background

conveying sentimentality. Text justification can also be used to convey mood, for example, indenting the text in the shape of a heart to convey a romantic intention.

Borders can also be used to add to the intent of the message, the shape of the border, for example, a rain cloud for sadness, the border density can also be changed, a thick density for messages of aggressive intent or a thin border density for a light hearted intent. Likewise the border colour can be changed using red for aggressive intent, for example. The border density can also be changed, for example, the light wispy density for intimate communication.

Icons for example animated characters or text can be inserted. For example, a happy character icon for a joyful message, a sad character icon for a sad message or words embossed in the background, for example, thinking of you as a watermark.

Other message format characteristics that could be added including changing accompanying images, for example, an image of the message originator to suggest that they are in the dog house when their intent is to apologise. Video images and audio elements could also be inserted. As an example, using a roaring crowd sound effect to accompany a message intended to convey success. As with static images the rendering of video images or sound elements can be changed, for example, making a voice message take on a cathedral style echo to convey a pompous intent.

Figure 1 shows the process of starting up a device loaded with an editing application and the present software, such as a personal computer. A user first powers on the device 101 and if required 102 logs on 103. The user than opens up 104 a messaging application and creates a new message 105. The user can save the message without mood formatting using the normal save features of the users messaging application. In the preferred embodiment the mood of the message text is recognised 106 and appropriate formatting is automatically applied 107 (see Figure 2).

An icon to associate with the message text (called "Hugh") is suggested 108 based on the message content and the user is given an opportunity to accept or reject the suggestion 109. A Hugh icon can be seen in Figure 11

If the suggested mood represented by a particular Hugh icon is accepted then the formatting remains 110. The user can then save or send the message 117. In an alternative embodiment the user can only save a complete message and is not presented with the opportunity to save a partially complete message.

If the suggested mood is not accepted 111 the user can change the automatic mood formatting 112. That is, the user may choose to remove 113 the formatting that has been automatically applied and save or send the text message to the receiver 117. Alternatively, the user can choose their own mood option by selecting the text to reformat 114 and making a mood selection 115 which involves multiple steps and will be discussed below with reference to Figure 3.

Having alerted the mood for the selected text the user can then reformat another part of the message 116, by selecting text to reformat 114 and then selecting the mood 115 or save the message and/or send it to the receiver 117.

Referring now to Figure 3 the user in customising the mood selection is presented with an option of either adjusting the intensity scale of a predefined Hugh 122 or customising a Hugh 123. A user who chooses to customise Hugh is given the option 127 of altering various formatting elements. Such elements include the font type, font size, font colour, font density. Whether the font is italicised, bolded or underlined. Other options available for the user to customise to reflect their mood and create new mood selections include justification, border shape, border density, border colour, background density, icons to be inserted, images and audio elements to be inserted, video images to be inserted. Once the user has customised the mood selection the formatting is applied to the message 126.

The user, if they choose to adjust the intensity of a predefined Hugh 122 has the ability to adjust the mood intensity to suit the context of the message 124. The selected formatting is then applied to the appropriate part of the message 126.

In an alternative embodiment (Figure 4) the user powers on the device 130, logs on 131 if required 132 and opens a messaging application 133. The user can then choose the option 135 of either making a mood selection 136 or typing in text 137. If an originator selects the mood and Hugh to be applied 136, the originator

can type in the message and the formatting of the selected mood/Hugh will be applied 142 and the originator can save or send the message 143. In selecting the mood/Hugh to be applied the originator follows the process discussed in relation to Figure 3. If the originator typed the text of the message 137 without selecting mood/Hugh then the originator can select part of the text 139 and select a mood/Hugh using the features discussed in relation to Figure 3 and the formatting will be applied 126. The originator then can either apply a mood to a further selected text 139 or send/save the message 143.

Referring now to Figure 6 the message sending and receiving process will be described. A user constructs 601 the message as previously described and either saves 602 or sends 603 the message. If the user saves the message they can upon opening the message view the whole message including the mood content. Having reopened the message the user can then send the message. The message is sent 603 and the message recipient receives the message 604. The recipient can view the message including the mood content. In the preferred embodiment the recipient would only be able to view the message mood content if they had the software application of the present invention. In an alternative embodiment the recipient would view the message mood content using a reader version of the software application of the present invention.

If the message recipient replies to the message or forwards 605 the message then the mood content cannot be seen by the receiver of the reply or the forwarded message. This is the case whether the recipient is using the reader version or using the full version of the software application of the present invention. In the preferred embodiment the message recipient while editing the message when replying or forwarding would not see the mood content.

An embodiment of the invention which allows sending and receiving a mood message using cellular telephones will be now described with reference to figures 7 to 16. The cell phone user opens up their preloaded mood enabled messaging application and selects new message 701. The user is given the choice of type of message to send including "New Mood Message" 801. If the user selects "New

Mood Message" the user is presented with a screen shown in Figure 9 to enable the user to create their message. The user creates the message and then selects "Mood" 901 to add mood content to the message. If the user selects "Exit" 902 then the user in the preferred embodiment is given the opportunity to save their message.

Having selected "Mood" 901 the user can select the mood of the message. The user is presented with a screen showing a number of different moods to select from. The user can select and "View" 1001 the mood. Figure 11 shows the mood the user has selected. If the user is happy with the selected mood the user selects "Select" 1101 and proceeds. If the user wants to reselect their mood the user selects "Back" 1102 and is presented with the screen shown in Figure 10 to make another selection.

After the user has selected their mood they then enter the address of the message recipient by entering the telephone number or other recipient identifier 1201 and selecting "Send" 1202. The message is then sent to the recipient. If the user selects "Exit" 1203 then the user in the preferred embodiment is given the opportunity to save their message including the mood content.

Referring to Figure 13 the recipient is notified by their telephone that they have a new message and are given the opportunity to "Read" 1301 the message or to "Cancel" 1302 the notification. The description assumes that the user has a mood enabled message application. If the user does not have a mood enabled message application then they will in an alternative embodiment be able to view the content of the message but not the mod context of the message.

If the recipient selects "Read" 1301 they are shown the mood the sender has selected. Referring to Figure 14 the mood selected is "Excited" 1401 and the animated icon 1402 reflects the mood. The recipient can then select "Read" 1403 to view the message or "Back" 1404 to go back to the previous screen.

Referring to Figure 15 the message is displayed where the mood is expressed using a background colour 1501. If the recipient replies to or forwards the message then only the content 1601 shown in Figure 16 is included in the forwarded or replied message and not the mood context.

In the preferred form of this embodiment each mood message is unique to the originator and recipients. Each mood message cannot be forwarded or edited or included in part of a message reply and while retaining the original emotional or mood content. The original mood or emotional content formatting is invalidated by forwarding or editing or including any part of a received message

In an alternative form of this embodiment mood context and the message are encrypted by the mood enabled messaging application. The encrypted message is decrypted by message recipients using the mood enabled messaging application.

CLAIMS:

1. A method of formatting electronic messages capable of being displayed on a display device comprising the steps of:

before or after a message originator has prepared an electronic message, presenting to the message originator a plurality of formats to choose from, each said format being a unique combination of more than one feature selected from the group comprising text attributes, including but not limited to colour, text backgrounds, and added sounds and images, each said format being indicative of and corresponding to a mood which the message originator may wish to associate with the message content; and

in response to the format selection made by the message originator, applying to the message the particular text attributes, background, sounds and images determined by the selected format.

2. A method of communication using electronic messages formatted according to claim 1 including the step of sending said message to a message recipient wherein if said recipient sends the received message said mood format is not displayed.

3. A method of communication using electronic messages as claimed in claim 2 including the steps of:

encrypting said message before sending said message to said recipient; and

before displaying said message, said recipient decrypting said message.

4. A computer program for formatting electronic messages capable of being displayed on a processor controlled display device which when executed causes the processor to:

present to the message originator a plurality of formats to choose from either before or after a message sender has prepared an electronic message, each said format being a unique combination of more than one feature selected from the group comprising text attributes, including but not limited to colour, text backgrounds, and

added sound and images, each said format being indicative of and corresponding to a mood which the message originator may wish to associate with the message content;

accept the format selection made by the message originator; and

apply to the message the particular text attributes, background, sounds or images determined by the accepted format selection.

5. A computer program for communicating using electronic messages formatted according to claim 4 wherein said computer program when executed causes the processor to send said message to a message recipient and wherein if said recipient sends the received message said mood format is not displayed.

6. A computer program for communicating using electronic messages as claimed in claim 5 wherein said computer program encrypts said message before sending said message to said recipient.

7. A computer program for communicating using electronic messages as claimed in claim 6 wherein before displaying said message, said recipient decrypts said message.

8. A method of formatting electronic messages capable of being displayed on a display device wherein:

before or after a message originator has prepared an electronic message, presenting to the message originator on a display device a plurality of format determining icons;

each said icon being indicative of and corresponding to a mood which the message originator may wish to associate with the message content;

each said icon on being selected, applying a pre-determined format to the message; and

each format being a unique combination of one or more features selected from the group comprising text attributes, including but not limited to colour, text backgrounds, and added sounds and images.

9. A method of communication using electronic messages formatted according to claim 8 including the step of sending said message to a recipient wherein if said recipient sends said received message said mood format is not displayed.

10. A method of communication using electronic messages as claimed in claim 9 including the steps of:

encrypting said message before sending said message to said recipient; and

before said message being displayed, said recipient decrypting said message.

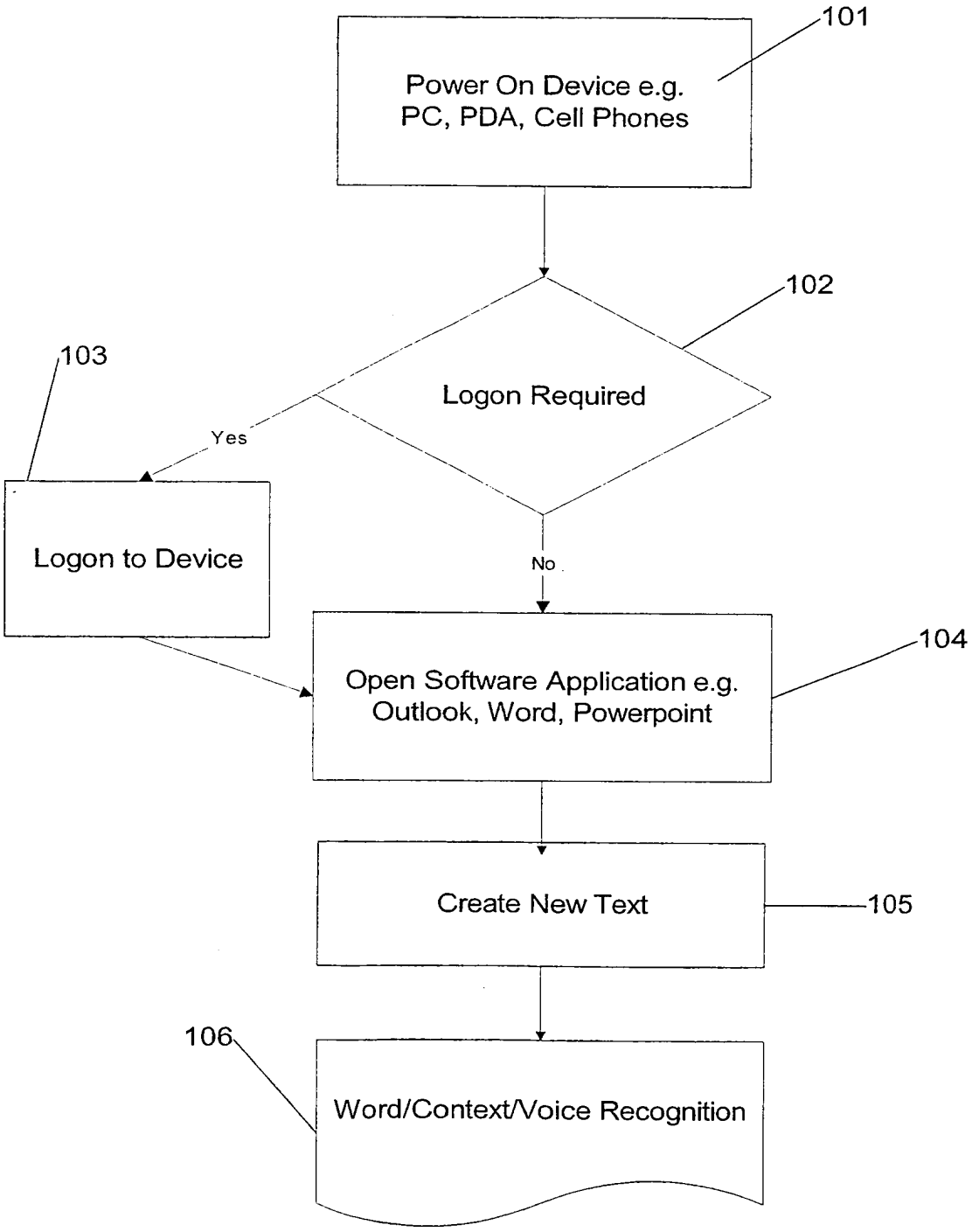

Figure 1

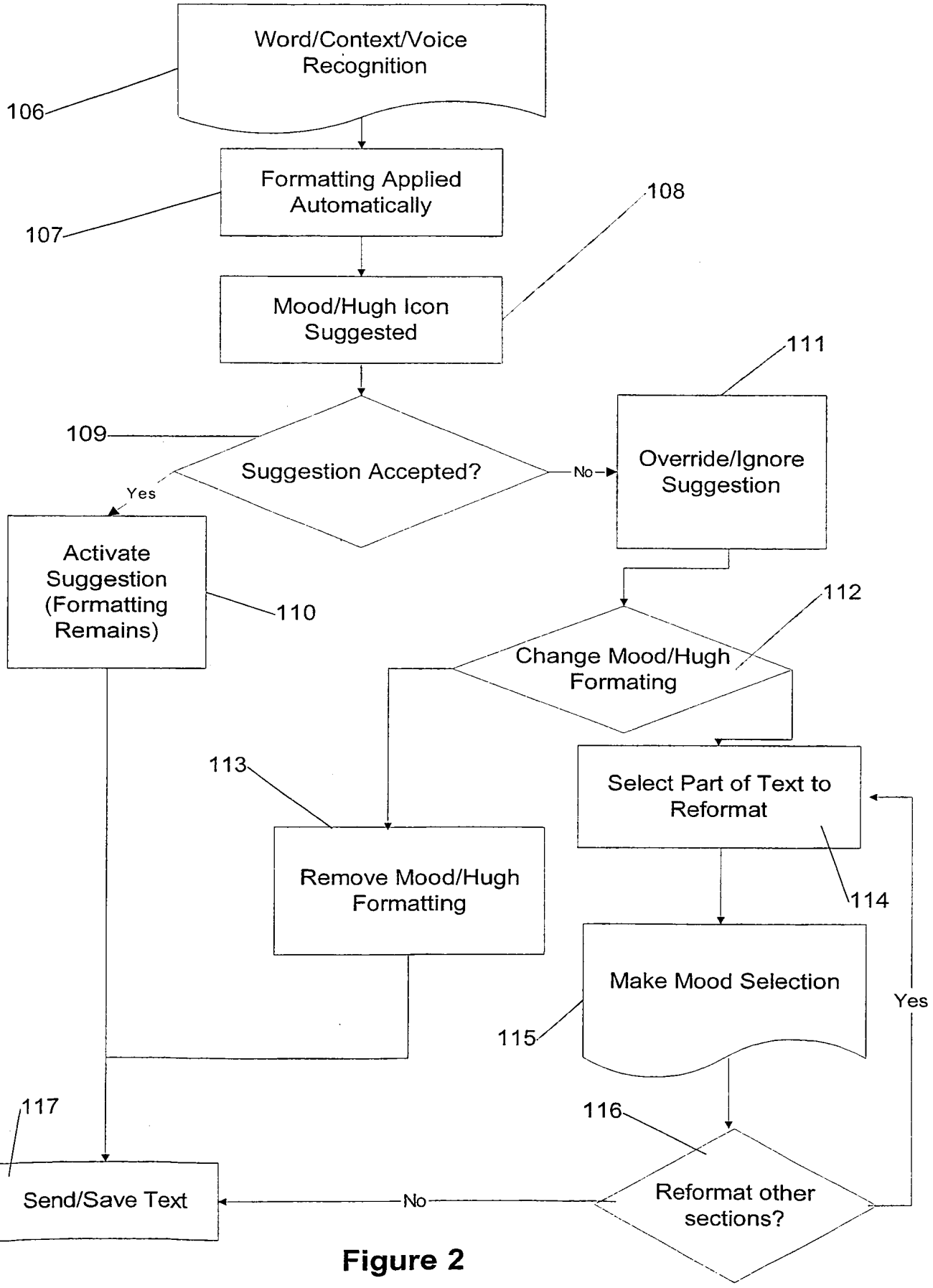
Word/Context/Voice Recognition
106
Formatting Applied Automatically
107
108
Mood/Hugh Icon Suggested
111
109
Suggestion Accepted?
No
Override/Ignore Suggestion
Yes
Activate Suggestion (Formatting Remains)
110
112
Change Mood/Hugh Formating
113
Select Part of Text to Reformat
Remove Mood/Hugh Formatting
114
Make Mood Selection
115
Yes
117
116
Send/Save Text
No
Reformat other sections?

Figure 2

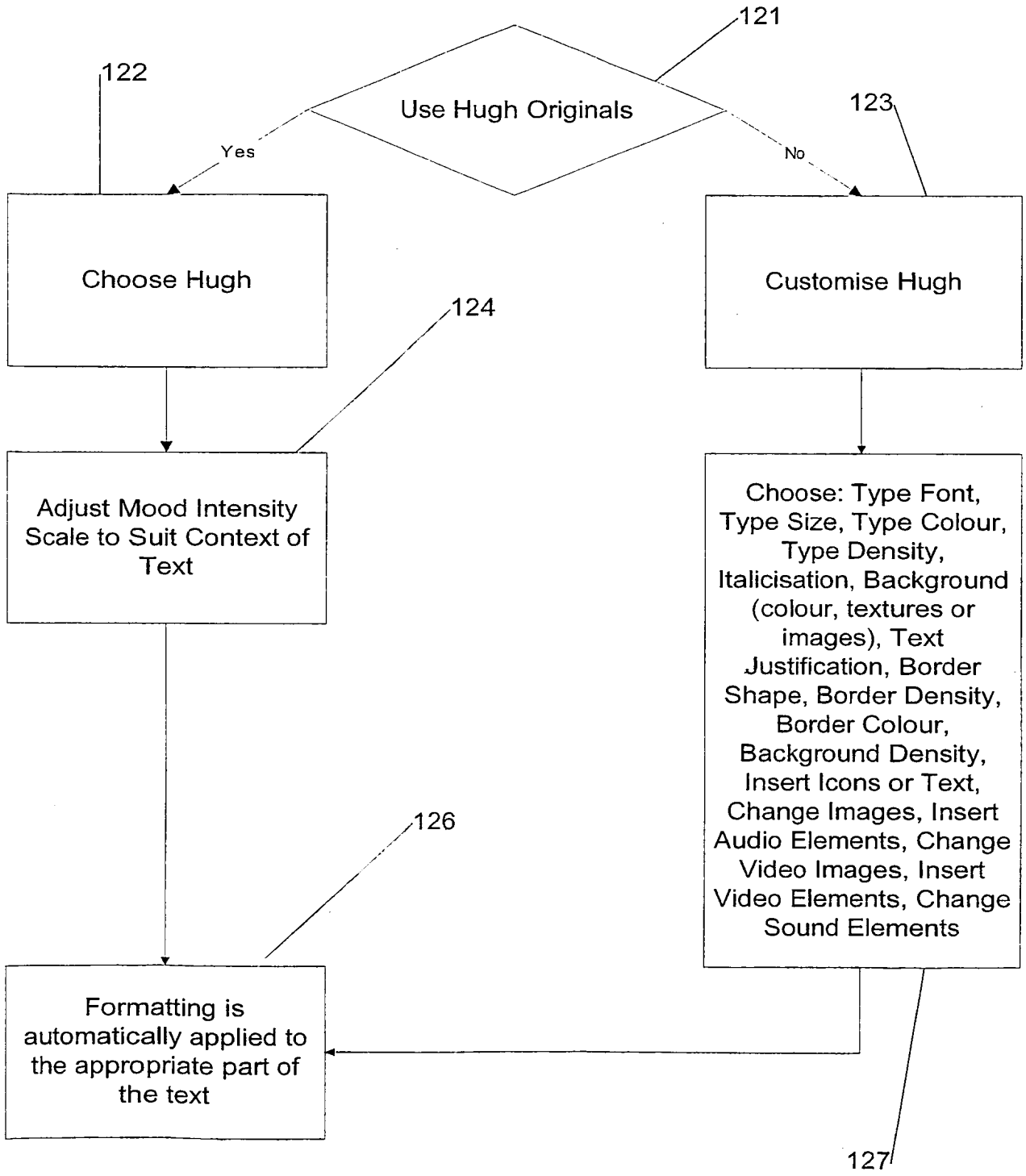

Figure 3

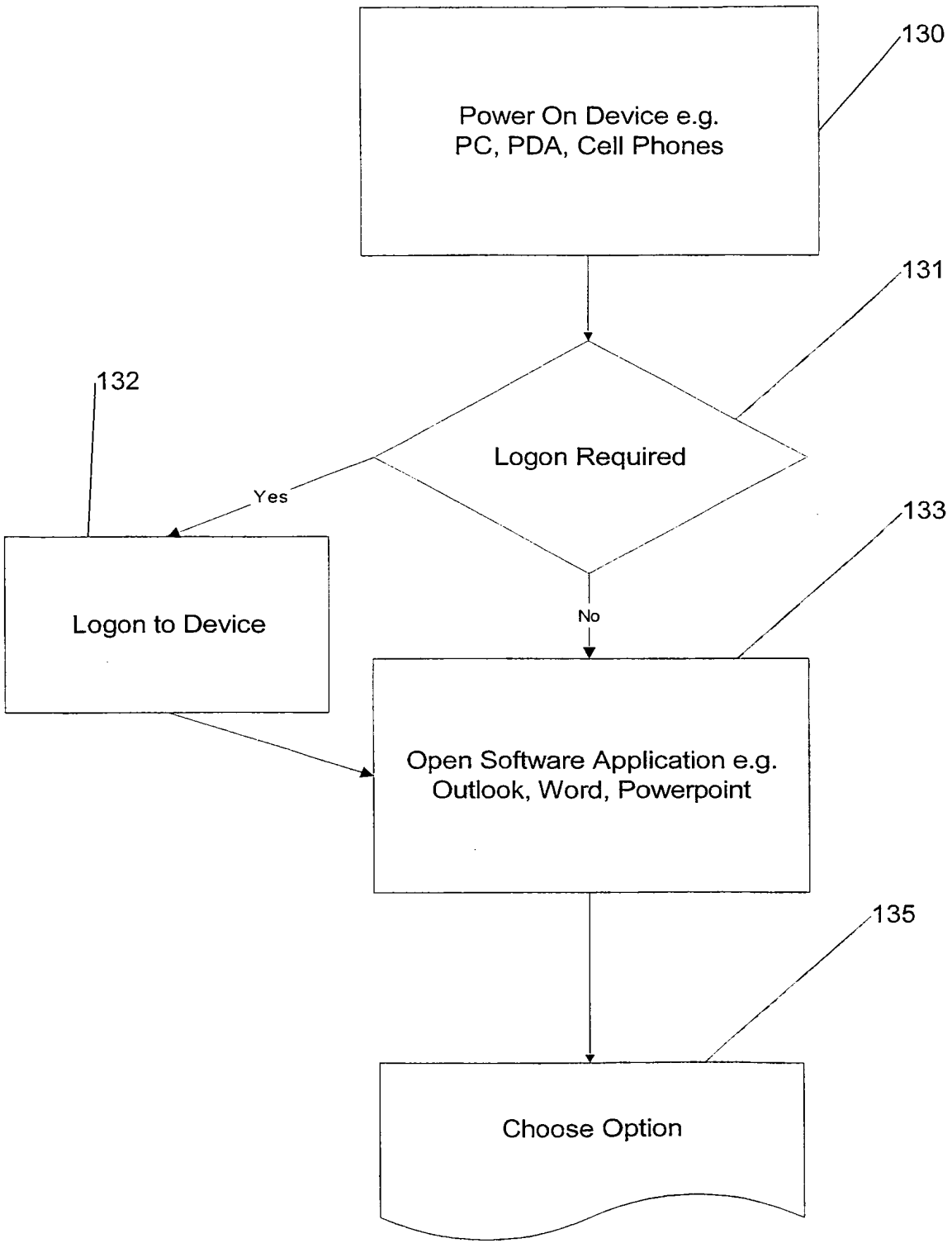
Power On Device e.g.
PC, PDA, Cell Phones
130
131
Logon Required
132
Yes
No
Logon to Device
133
Open Software Application e.g.
Outlook, Word, Powerpoint
135
Choose Option

Figure 4

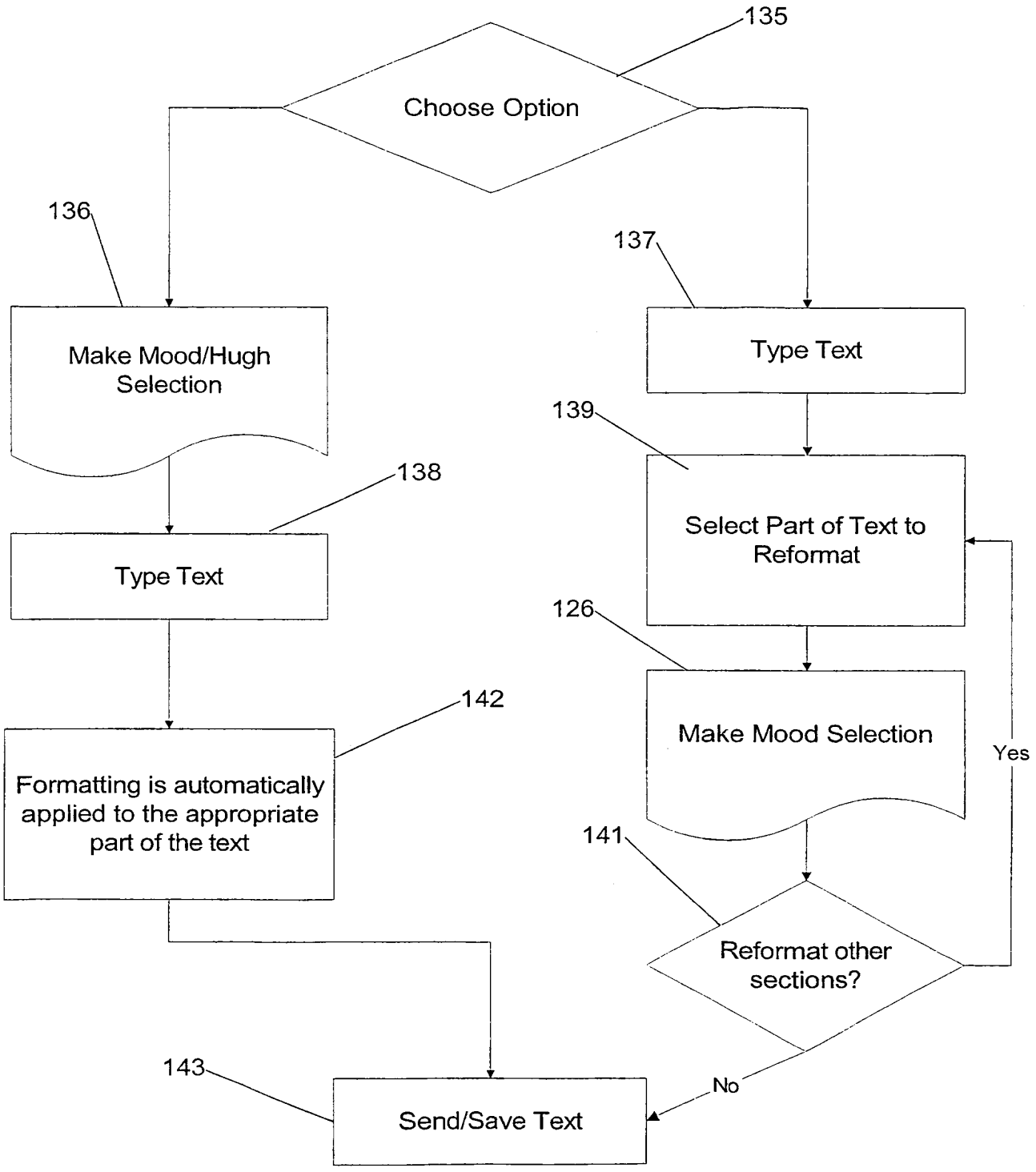
135
Choose Option
136
Make Mood/Hugh Selection
137
Type Text
138
Type Text
139
Select Part of Text to Reformat
126
Make Mood Selection
142
Formatting is automatically applied to the appropriate part of the text
141
Reformat other sections?
Yes
No
143
Send/Save Text

Figure 5

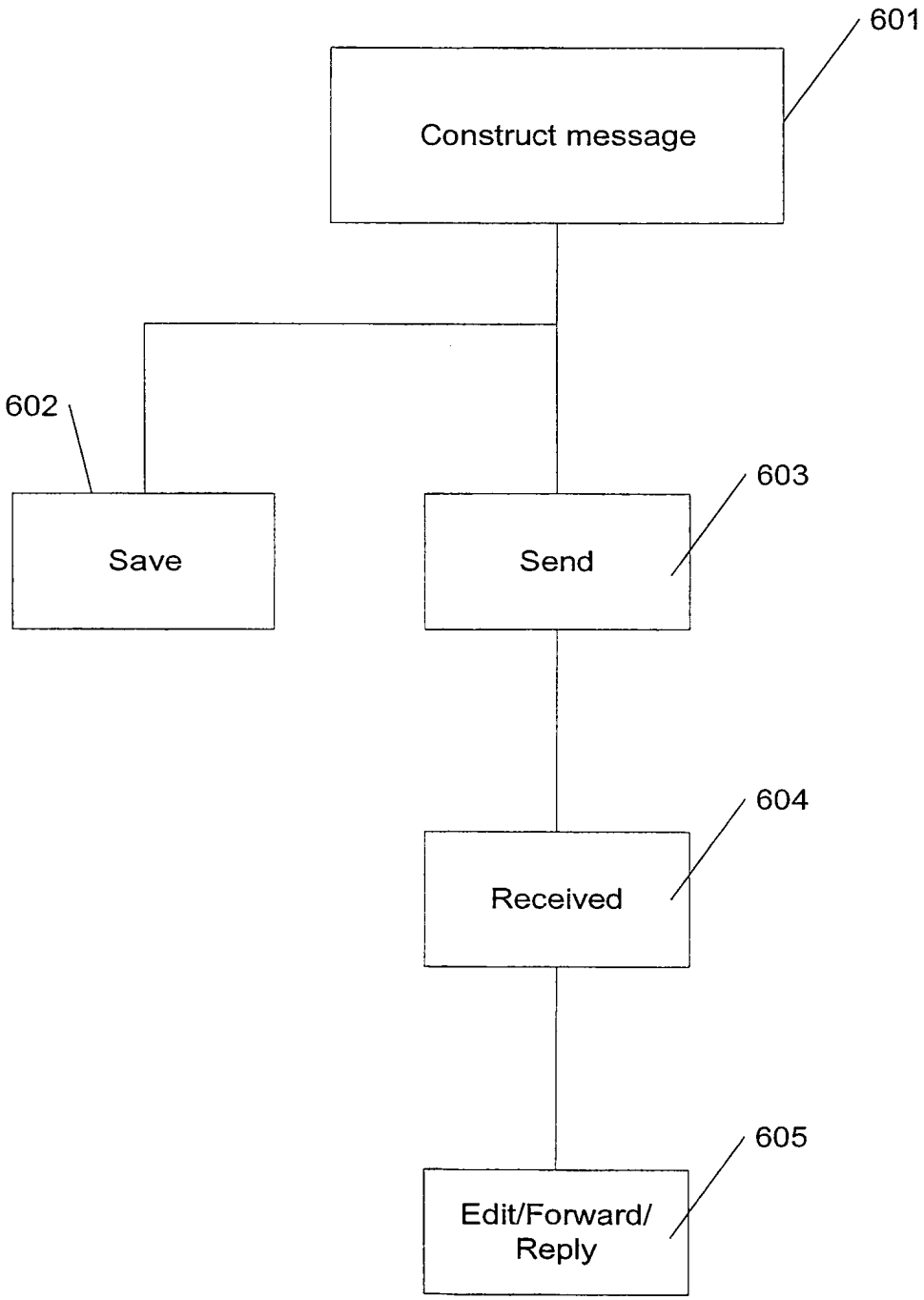
601
Construct message
602
Save
603
Send
604
Received
605
Edit/Forward/
Reply

Figure 6

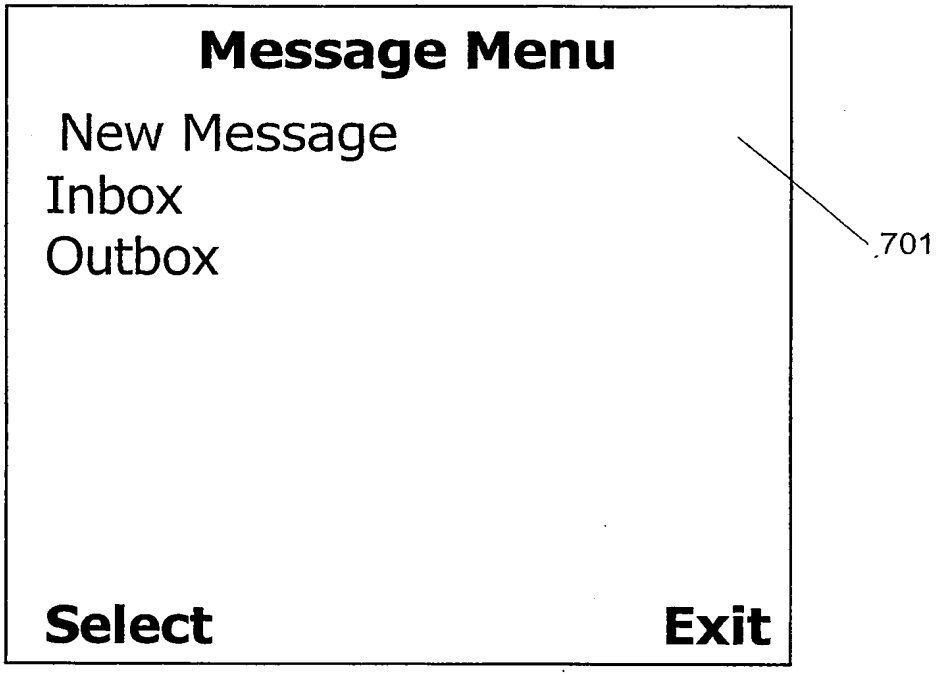

Figure 7

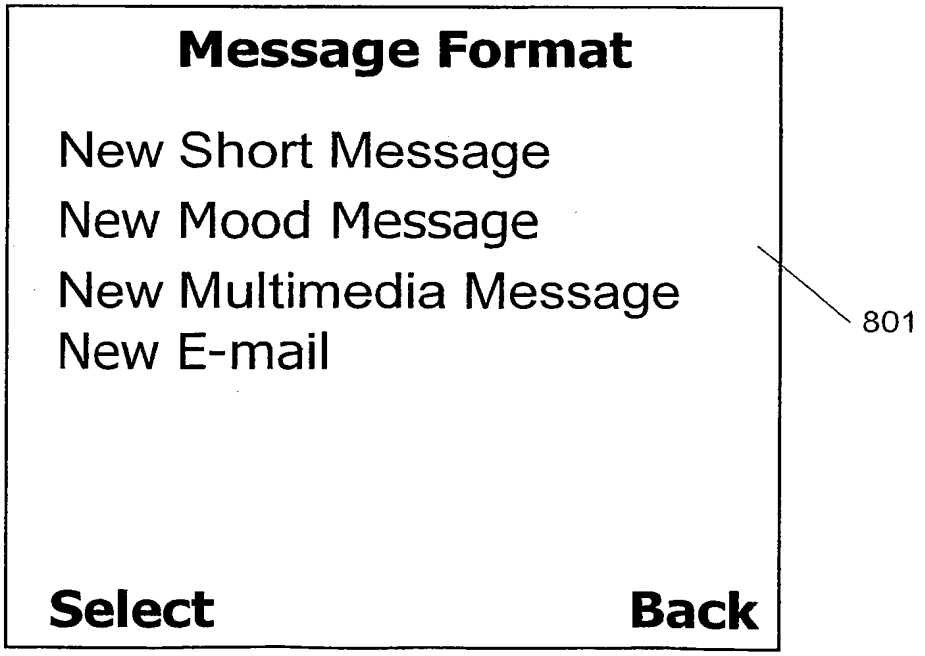

Figure 8

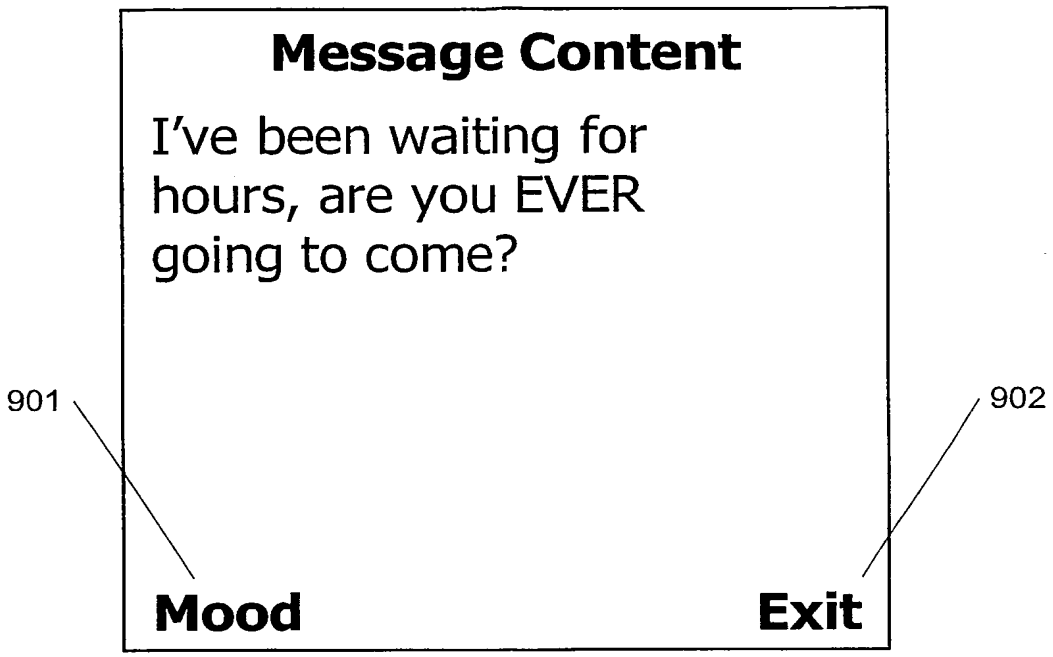

Figure 9

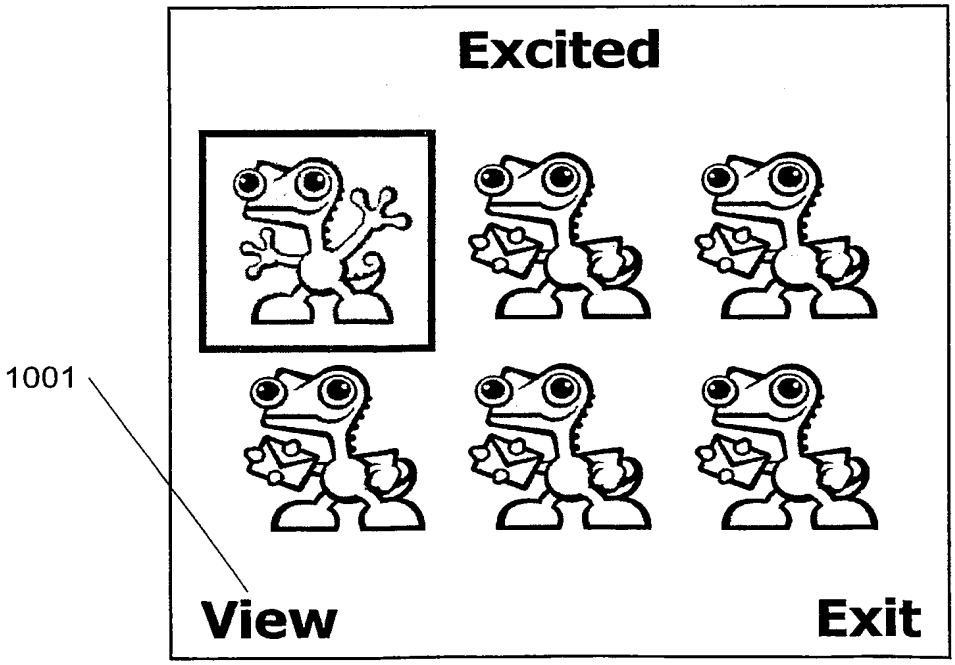

Figure 10

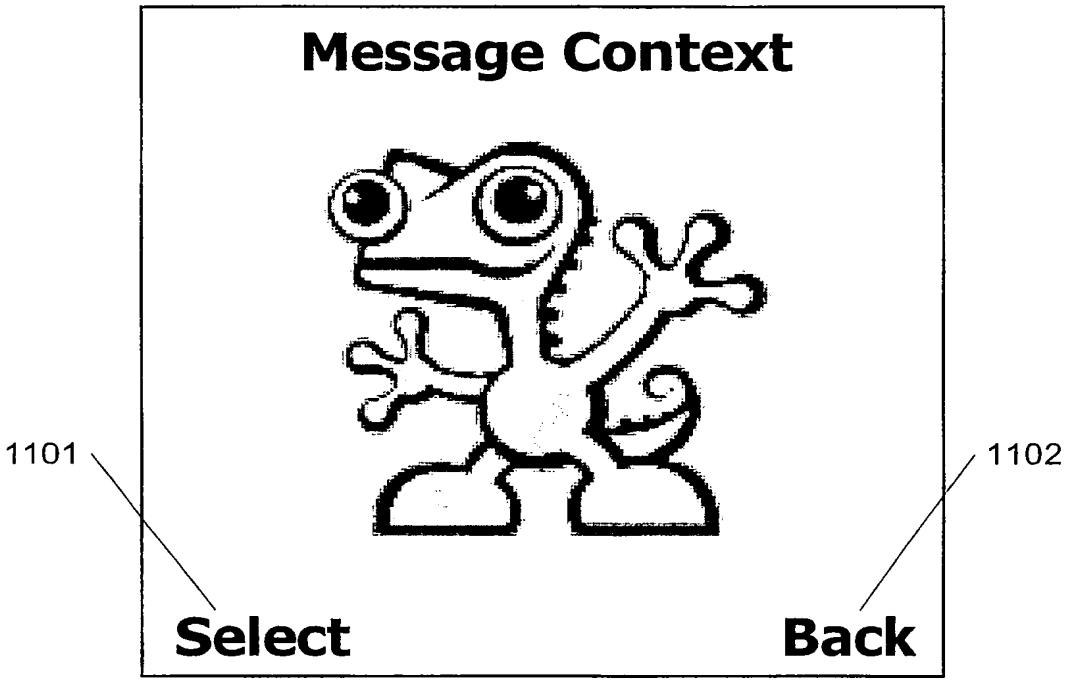

Figure 11

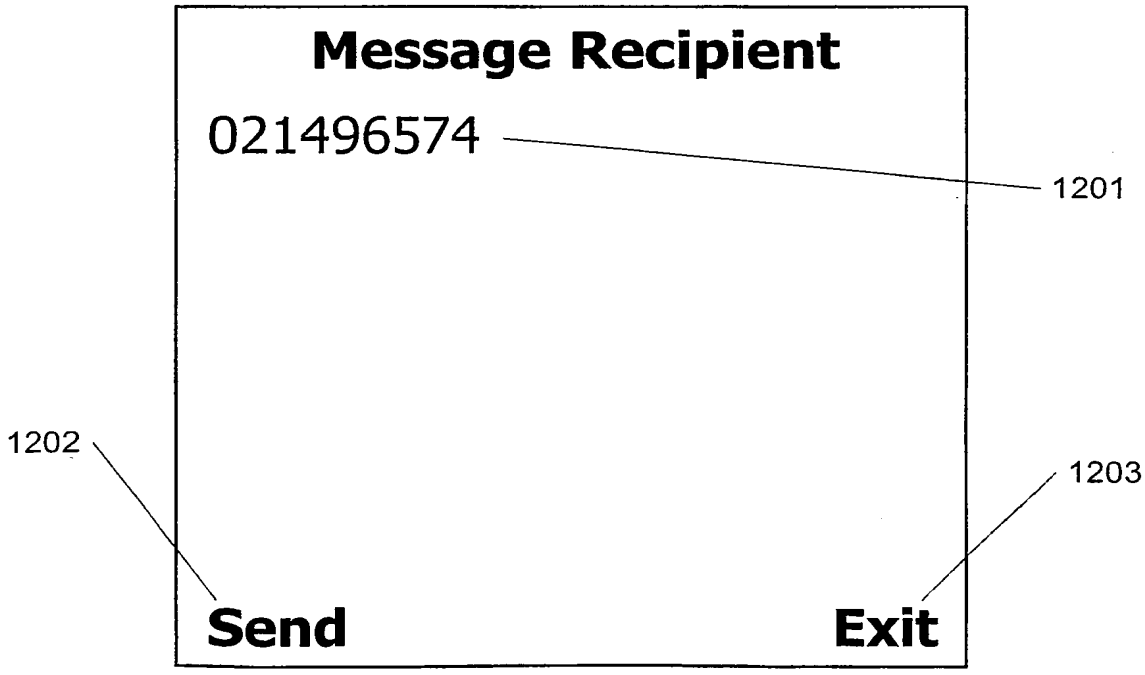

Figure 12

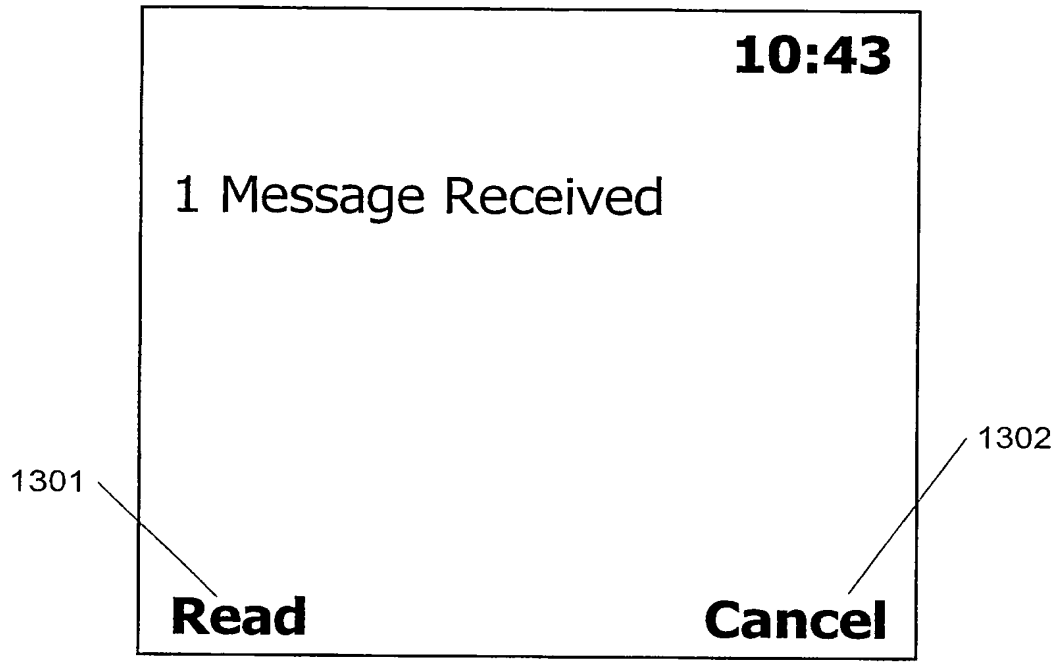

Figure 13

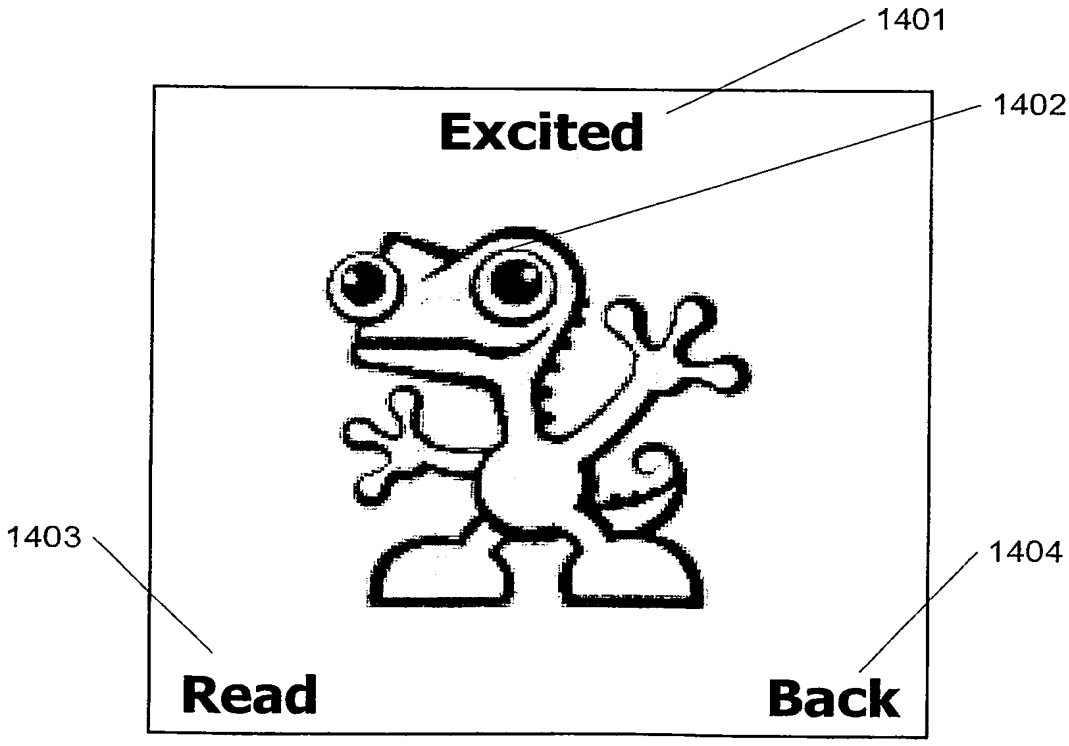

Figure 14

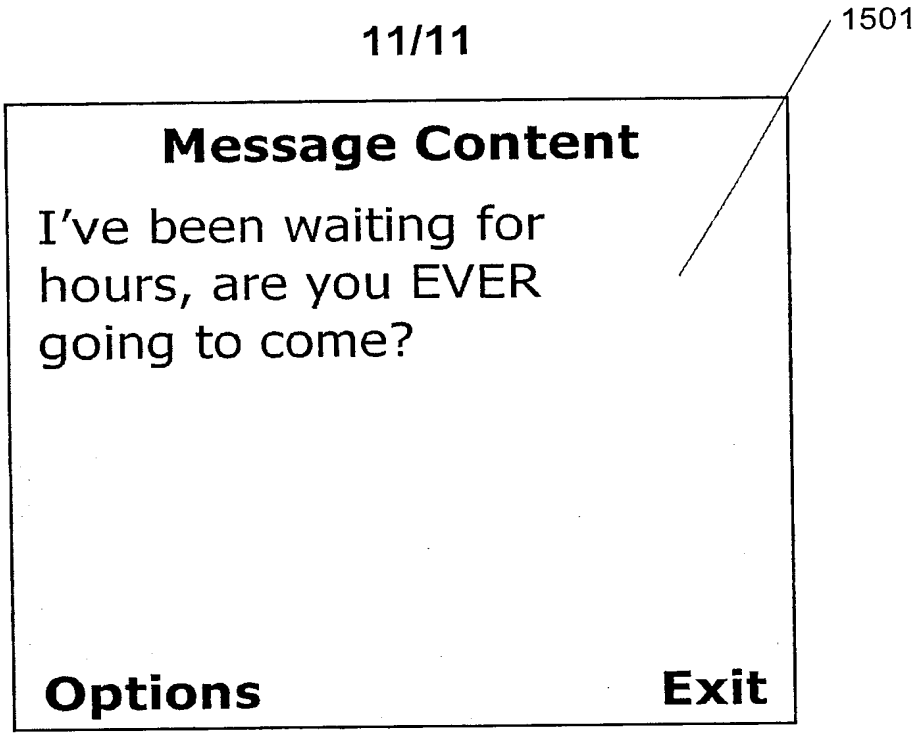

Figure 15

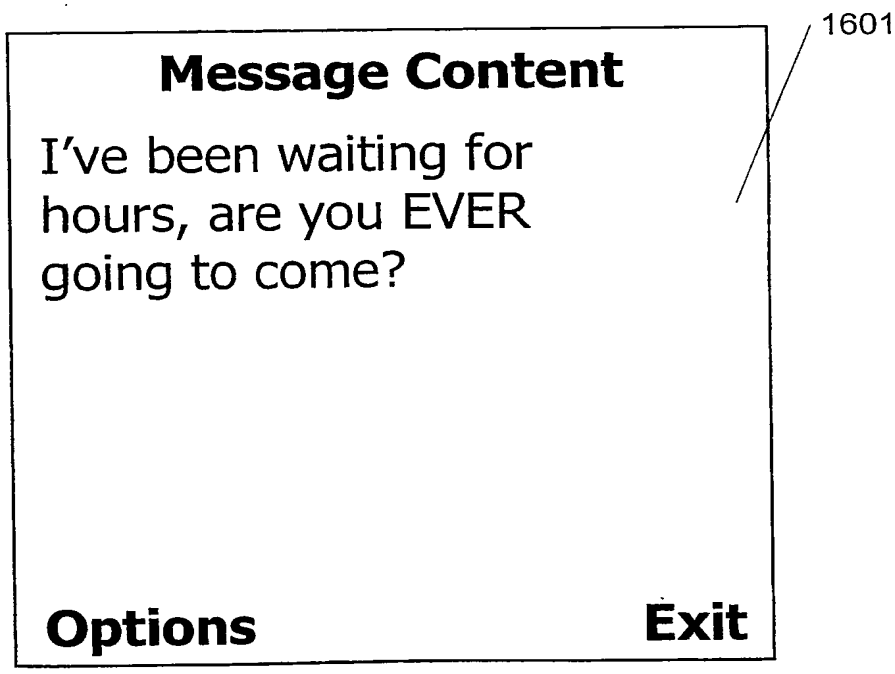

Figure 16

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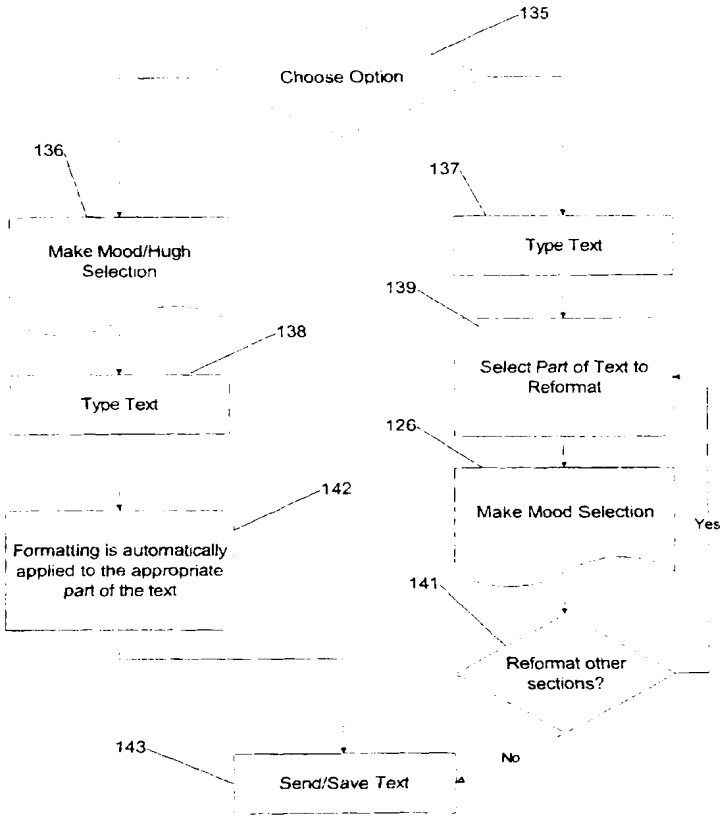
(81) Designated States *(national)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States *(regional)*: ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,

[Continued on next page]

(54) Title: MOOD MESSAGING



(57) Abstract: A method of indicating mood in electronic messages capable of being displayed on a display device is described. Before or after a message originator has prepared an electronic message, the message originator is presented with a number of mood formats to choose from. Each format being a combination of more than one formatting feature comprising text attributes, including colour, text backgrounds, and added sounds and images. Each of the formats is indicative of a mood which the message originator may wish to associate with the message content. When the message originator has selected a mood to apply, the particular text attributes, background, sounds and images determined by the selected format are applied.

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ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/NZ02/00273

A. CLASSIFICATION OF SUBJECT MATTER

Int. Cl. [7]: G06F 3/14, H04Q 7/22, G06F 17/21

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
USPTO, DWPI (mood, emotion, affective, feeling, intent, sentiment, SMS, email, message, text, instant messaging)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	Derwent Abstracts Accession No. 2000-469430/41, Class T01 JP 2000172392 A (NIPPON TELEGRAPH & TELEPHONE CORP), 23rd June 2000	1-10
X	Derwent Abstracts Accession No. 2000-470720/41, Class T01 JP 2000174801 A (NIPPON TELEGRAPH & TELEPHONE CORP), 23rd June 2000	1-10
& X, P	DE 202 08 322 U1 (HEWLETT-PACKARD CO), 2nd October 2002 GB 2 376 379 A (HEWLETT-PACKARD COMPANY), 11th December 2002 the whole document	1-10

[X] Further documents are listed in the continuation of Box C [X] See patent family annex

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
19 February 2003	27 FEB 2003
Name and mailing address of the ISA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaustralia.gov.au Facsimile No. (02) 6285 3929	Authorized officer **M. J. O'ROURKE** Telephone No : (02) 6283 2017

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/NZ02/00273

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X, P	US 2002/0082007 A1 (HOISKO et al), 27th June 2002 the whole document	1-10
X, E	US 2003/0002633 A1 (KREDO et al), 2nd January 2003 the whole document	1-10
X, P	Derwent Abstracts Accession No. 2002-145438/19, Class T01 JP 2001350704 A (FUJITSU LTD), 21st December 2001	1-10
A	US 5,860,064 A (HENTON), 12th January 1999 the whole document	1-10

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.
PCT/NZ02/00273

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report		Patent Family Member	
JP	2000172392	NONE	
JP	2000174801	NONE	
GB	2376379	DE	20208322
US	2002082007	FI	20002828
US	2003002633	EP	1274222
JP	2001350704	NONE	
US	5860064	NONE	

END OF ANNEX